AITP 21th Annual National Collegiate Conference Web Application Project Competition

Problem Statement Overview

The Web Application Project Competition is a real-life system analysis/design and implementation project. All teams (1 to 5 members) are expected to complete the first 3 phases of this competition in order to qualify for the final product presentation at the National Collegiate Conference in April 2016 in Chicago, IL.

There are many different ways for a Project to be accomplished and we recognize that, the tools and methods you use will be up to the team; this can include Agile/Scrum method, traditional Waterfall method, or another you might pick. As part of the Phase I documentation we are asking for you and your team to write a small description on what method you choose to use (this will help the judges in determining how to grade your project). We will require all teams to submit the same type of documentation at the end of each phase, but how you get to that will depend on what you use for the project method management style.

The grading for the Traditional Methods will stay the same, using the grading matrix we have used for many years. The grading for the Agile/Scrum method will be done by the major deliverables that the contest requires. It will be up to these teams to come up with a project schedule that takes these deliverables into mind when submitting them for grading. Once I receive your proposed Scrum break down then I will come up with a grading matrix for that team.

See below for Phase I requirements. The team must submit the signed contract, team scope statement, and project management methodology (**this is in a single PDF document**) prior to starting on Phase II. The final due date for the first Phase is November 14, 2015. You must include with the Phase I Document the following:

Team Name	ex: Logan's Running School
School Name	ex: Logan Run University
Team Contact Person	ex: Kelly Main (Team's Project Manager)
Contact Person E-Mail Address	ex: kmain@lru.edu

****A sample Contract and Team Charter Statement are located at the NCC Competition website under the Web Application Project Competition page****

Once the Contract and Team Scope Statement are received you will be assigned a Team number which from this point forward will be denoted as ## (ex: 01). The following is the format for the subject line for all communications with the NCC Web Project Administration.

Web Application Project – Team ## -Your School Initials – Contract/Phase I/Phase II/Phase III/Phase IV/Phase V

Ex. Web Application Project – Team 01 – OCC – Phase I

Note: If there are any questions at any time during this process as pertaining to any aspect of the competition please contact contest coordinator Larry Friedlander (aitp-web@hotmail.com) who will respond as soon as possible with an answer. ***Also please note that all documentation is to be submitted in a single PDF*** file, correctly named.

Competition Phase Due Dates for 2015

Phase/Scrum	*Traditional Description*	*Scrum Description*	*Phase Due Date*	*Scrum Due Date*
Phase I / Scrum 1	*Contract, Scope Statement, & Methodology*		*November 14, 2015*	*November 14, 2015*
Scrum 2	*Nothing Due*	*Process Scrum Documentation*		*December 11, 2015*
Phase II / Scrum 3	*Analysis and Design Document*	*Process Scrum Documentation*	*February 12, 2016*	*February 12, 2016*
Scrum 4	*Nothing Due*	*Process Scrum Documentation*		*March 4, 2016*
Phase III / Scrum 5	*Construction and Documentation*	*Process Scrum Documentation*	*March 25, 2016*	*March 25, 2016*
Finals	*Presentation at Conference*	*Presentation at Conference*	*April 9, 2016*	*April 9, 2016*

Possible Points and Percentage of Total (per Judge)

Phase	Description	Points Possible	Percentage of Total
Phase I	Contract & Scope Statement	15 points	8.0%
Phase II	System Analysis/Design	75 points	38%
Phase III	System Construction/Documentation	75 points	38%
Finals	Presentation	35 points	16%

Grading for this project is based on 200 points per Judge, and with 4 judges grading the projects the final grade will be out of a total 800 points.

All teams must complete Phase I by the data mentioned and document must contain all Materials requested.

For the Agile Based Teams you must complete all parts of the Analysis and Design by the end date of the Phase III for traditional project management. You must list all of your scrums and when those parts of the project were completed (ex. Scrum #1 Completed 12/15/15 included the following parts: 2,3,5,7). Please submit your scrums every two weeks (or agreed upon scrum schedule) for grading at that time.

For the Tradition Method Teams you must complete each phase by the dates indicated in the publish schedule of the Problem Statement, and all documents are due at that time. All teams picked for the final Presentation must complete all requirements for the project by the time of the presentation in April. Please make sure your final document includes of the work done, and in a form that follows the steps of the project

Problem Statement Specifications

A school may enter more than one project team. A team may consist of 1 to 5 team members. A student member can be on only one team. The teams competing in this contest can be part of an academic class and can have undergraduates as well as graduate students (the only stipulation on team members is that they cannot be IT Professionals in the Web programming profession, this will be left up to the AITP advisor to determine the eligibility of all team members). Each member of the team must be an AITP student member, and at least 2 of the

members of the team must be present at the AITP National Conference to participate in the final presentation.

Teams are expected to submit complete and readable documents, charts, etc. for each phase in a ***single PDF file (if not a PDF file it will be returned to you with a loss of 2 points)***. Please note that all due dates are for those phases only; work may continue on all aspects of the project until the final due date. Any phase work may be submitted prior to the due date (make sure each phase is a separate submission and include the phase number being submitted in the email subject line (ex: ***Web Application Project – Team ## -Your School Initials – Contract/Phase I/Phase II/Phase III/Phase IV/Phase V)***. If your project is not chosen for the final presentation at the conference the team is still required to finish the project and turn it over to the client as agreed to in the signed contract.

Phase I : Obtain Client, Scope Statement and Contract and Project Management Methodology:

Each team is required to find and identify a non-profit organization as a client (501 C3 or actively in the application process). The non-profit organization may not include fraternities or sororities. Organizations may include a local YMCA/YWCA, Life Source Blood Bank, Boy/Girl Scout troops, and civic clubs. If in doubt about the choice, contact the contest coordinator. The contract, team scope statement, and Project Management Methodology should be submitted ***in a single PDF formatted document with the School Name – Contract.pdf*** to the contest coordinator and must be received by ***11/14/15***.

There are organizations that may want to replace or update their current web presences or want a new web presence designed by the team. A Team Scope Statement and Contract will be required to be signed by the organization and the design team which will stipulate:

1) Goals of the client's expectation for this project
2) Team Scope Statement
3) That the website and all documentation will be turned over to the organization at the end of the project/competition.
4) All maintenance and running of the website becomes responsibility and property of the non-profit organization once the conference is concluded or as soon as possible afterwards

Deliverables for Phase I (required for all teams):

- Obtain a Client with needs of a new/updated web presence (2 points)
- Obtain a signed contract with the client (5 points)
- Team Scope Statement (5 points)
- Write up of Project Management Methodology (3 points)

Phase II:

In this phase we will be looking for how the team came up with the requirements during the analysis of the project, which includes a basic project statement of needs, the feasibility of the project (are the requirements going to fit the needs of the client), interviewing and gathering of the facts from the client. Also at this point determining the requirements of the backend database component of the website, and finally coming up with a project timeline for completing this project in time for getting graded and ready for the conference.

The second part of this phase will be the actual design on the website, including look, feel, colors, and movement from page to page. This includes the structure charts of how the whole site fits together. The design of the database and data structure of the data being store (using whatever tool you feel gets the design across). Coming up the implementation specifications (who will be doing what, the schedule of what needs to be accomplished when and full testing of the concept). Also needed during this part of the project will be putting together a full testing schedule (what will be done during SIT, test cases for SIT, then a schedule of User Acceptance testing, who will be testing what and when).

The first major deliverable for Traditional Teams will be a completed Requirements Document (analysis) and a completed Design Document which are to include, For the Agile Teams this Phase will be made of one or more Scrums, please scope out your scrums a head of time:

Systems analysis: This includes the basic desires and needs of the organization, and how the team will meet those stated needs and desires.

The following are check points for this phase and must be included in the submission of Phase II documentation. Point values for this phase are (again this will cover the Traditional process, and a detailed point matrix will be made for the Agile Teams):

- Project Scope Statement (different than Team Scope Statement) (6 points)
- Project Feasibility Study (6 points)
- Interview questions and answers, data gathering (6 points)
- Database component - a backend repository of information for the website, includes the following components:
  - Input (4 points)
  - Update (4 points)
  - Delete (4 points)
  - Query of the information (4 points)
  - Inclusion of a secure login for admin data (4 points)
- Project timeline (proposed timeline) (4 points)

Systems Design:

The following are the check points for the Systems Design portion of this project:

- Project Timeline updated (4 points)
- Structure charts (4 points)

  - The database design should be allowed to be completed in either traditional (DFD, ERD, etc.) or OO/UML (use case, class diagrams, etc.)
- Database design (4 points)
- Database structure (4 points)
- Coding specifications (4 points)
- Implementation specifications (4 points)
- Testing Specifications (create test cases both SIT and UAT) (4 points)
- Final Phase II document to Client (4 points)
  - Also include any pertinent communications with the client made during this phase, do not include all communications, but only those that made a large impact on the project
  - ***The client sign off of Phase II of the contract*** (Traditional) (2 points)
  - ***The client sign off of each Scrum*** (Agile) (2 points)
    - ***(The two above are extra credit points given if done correctly)***

The design documentation and project schedule for completing the website are to be submitted with this stage. For teams using the Agile method you will have multiple submissions during this process, please use the same naming convention. The final date for submitting this phase of the project will be **02/12/2016** and ***in a single PDF formatted document with ##-School Init-PHASE II.pdf.***

Phase III:

Phase III of the project will start upon submission of Phase II documentation. The following are check points for Phase III of this project (again Agile will follow the Scrum Method):

- Commence coding based on the agreed design (5 points)
- Testing specifications (updated if needed) (5 points)
- Testing results of the website (SIT and UAT) (5 points)
- Project change control (for changes the client requests outside of the agreed to design) (6 points)
- Web Site Build:
  - Design per specifications (8 points)
  - Functionality per specifications (8 points)
  - ***Site URL sent*** ***(6 points)***
  - ***Administrator logon and password to be included*** ***(6 points)***
  - ***Communications with Client*** ***(5 points)***

This part of the deliverable will be submitted with the **final judging URL and any administrator logon and password** of the website application.

Technical and User Documentation:

- User Manual (10 points)
- Technical Documentation (10 points)

- ***Both of the above documents for the web application project must be included, this is an absolute requirement and a team may be disqualified if this is missing.***
- There will also be a two-part questionnaire supplied to each team:
  - Part I is to be given to the client requesting feedback covering the overall impression of the work done and how well it meets the original needs specified.
  - Part II is for each team member to reflect on the complete process, please have each member fill this out.
  - Using the provided client questionnaire you may expand upon this to provide additional feedback (the questionnaire must be turned in at the conference).
- The judging will be mainly looking at the technical document and the user document. The key here is the documentations readability and understandability for a typical user, who could pick it up and understand the use of the system, and be able to navigate the web site.
- Include any pertinent communications made during this phase. Do not include all communications, but only those that made a large impact on the project
- The client sign off of Phase V of the contract.

The completion goal for Phase III and all Agile scrums is ***March 25, 2016***, and will be ***in a single PDF formatted document with ##-School Init-PHASE V.pdf***

There will be a total web site freeze at this time to give the judges the opportunity to look at your website without worry of changes taking place. You will be given time to make changes once the judging is completed.

The site will be scored based on site appearance, ease of site navigation, the content of the website and how well it meets the original design and scope statement (using the project checklist as a guide) submitted during the previous phases.

Phase III submissions will be scored and a one-week timeline will be allowed for any major questions or suggested changes to be resolved. After the completion of any allowed resolutions the finalists will be selected to present at the 2016 conference. Any site not selected as a finalist should be completed and turned over to the client by the date of the 2016 conference.

A new addition for the 2016 competition, is if the teams that do not make the final presentation part, may display a poster board with their project for everyone to see what the other teams were working on (more information on this later in the process).

Finals: Presentation of Web Project

For those teams chosen for the finals, you will be notified at least one week prior to the Conference, this should be enough time to prepare and rehearse your final presentation of your web project. There are two things being graded during the final presentation and they are:

- Actual Presentation (content and understandably) (20 Points)
  - Introduction of team
  - Overall project scope
  - Analysis process taken

  - Design process taken
  - Display final web presence
  - Did the final product meet the clients expectations and what was their feedback
- Professionalism of the presentation (15 points)
  - Well dressed (remember: board room presentation)
  - Well-rehearsed (clear speaking, connect to audience, clear knowledge of product)
  - Professional looking PowerPoint, eye contact, not reading from notes

The following are additional things to think about for presentation:

- This presentation is supposed to be the one you will give to your clients at the time of turnover, you must treat this as if the judges are your clients and you are presenting the analysis/design process and demonstrating the final product to them. Dress accordingly, practice your presentation ahead of time, be prepared for questions after the presentation is done, and just have fun.
- You will be given 15 minutes to make your presentation, and this includes setup time. A computer will be made available to you, that will be hooked to the internet and you will be able to have your PowerPoint file loaded prior to the session.

- You will be asked to provide an electronic copy of all of the materials created during the complete project process.

Team representatives for the website applications selected as finalists will present results at the NCC on April 9, 2016.

Once all of the finalists have presented, the judges will then make their final determinations. Winners and honorable mentions will be announced at the Saturday Night Awards Banquet.

WEB APPLICATION PROJECT COMPETITION
RULES, REQUIREMENTS AND PROCEDURES

RULES:

The following rules apply to all teams entering the Web Application Project Competition:

1. Participants must be AITP student members and members of the student chapter.
2. Each school may enter multiple Web Application Project teams.
3. A Web development team is limited to up to 5 members as each member meets the chapter membership criterion and is not now or has been a practicing Web developer or Design professional, and members only participate on one website if the school has more than one entry.
4. The Web Application must comply with legalities for a public Web presence.
5. Each team must comply with all submission requirements and deadlines as outlined in the problem statement or it will be eliminated.
6. The client must be a qualified non-profit organization. If a team has a question as to whether an entity qualifies it should ask the competition coordinators.
7. All documentation must be submitted in a **single PDF formatted document**. With each Phase being a separate file. Please only submit that phases Paperwork and not the whole project. If you do not submit in a PDF document, you will be asked to resubmit that phases paper with a 2 point deduction.
8. The team must provide a set of User documentation and Technical documentation both to the Client and the judges as part of Phase III, this is an absolute requirement and a team will be disqualified if this requirement is missing.

TECHNICAL REQUIREMENTS:

- The site must have an update feature easily accessible by the client and utilizing a database platform.
- The site may be designed and constructed using any programming languages or Web development tools.